



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-2241; Project Identifier AD-2023-01214-A; Amendment 39-22629; AD 2023-25-02]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Piper Aircraft, Inc. (Piper) Model PA-46-350P, PA-46-500TP, and PA-46-600TP airplanes.

This AD was prompted by a report that a bearing fell out of a control column mount during routine handling prior to installation in an affected airplane and the discovery that a quality escape condition could exist on other airplanes. This AD requires inspecting the left and right control column mounts to determine if a retaining ring is installed. If a retaining ring is not installed, this AD requires inspecting the bearing in the mount block for the presence of retaining compound, and depending on the inspection results, installing a retaining ring and applying retaining compound to the bearing, as applicable. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 5 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 5 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-2241; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: (772) 291-2141; website: www.piper.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-2241.

FOR FURTHER INFORMATION CONTACT: Tuan Tran, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5522; email: 9-ASO-ATLACO-ADs @faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include “FAA-2023-2241Project Identifier AD-2023-01214-A” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason

for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Tuan Tran, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

On November 15, 2023, the FAA received a report that a bearing fell out of a control column mount during routine handling, prior to installation on a Piper Model PA-46-600TP airplane. To conform to the type design, this bearing is installed in the mount block using a retaining compound into a recess in the control column mount with secondary retention provided by a retaining ring. Piper’s investigation into this incident revealed that the retaining ring was not installed. If the bearing is not secure due to the absence of the retaining ring the quadrant assembly and shaft could migrate aft and separate from the firewall attachment, creating a free end on the affected control column.

With a free end on the control column, combined with other factors, the aileron cables could become slack, resulting in loss of aileron control, and it could also bind the free operation of the elevator control system. Slack aileron cables and binding of the elevator controls would affect both the pilot and copilot controls. On November 17, 2023, further investigation by Piper into this situation found a quality escape issue on certain Piper Model PA-46-350P, PA-46-500TP, and PA-46-600TP airplanes where the possibility exists that the retaining ring was not installed during production or retaining compound was not applied to the bearing. A missing retaining ring in a control column mount, if not addressed, could lead to a major failure in the aileron quadrant assembly and result in loss of pitch and roll control of the airplane during flight with consequent loss of control of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

FAA's Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Piper Service Bulletin No. 1409A, dated November 21, 2023 (Piper SB 1409A). This service information specifies procedures for inspecting the left and right control column mounts to determine if a retaining ring is installed, inspecting the bearing in the mount block for the presence of retaining compound, installing a retaining ring, and applying retaining compound to the bearing. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

AD Requirements

This AD requires accomplishing the actions identified as "RC" (required for compliance) in Part III. of the Instructions in Piper SB 1409A.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when

the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because a missing retaining ring in a control column mount, if not addressed, could lead to a major failure in the aileron quadrant assembly without warning and result in loss of pitch and roll control of the airplane during flight with consequent loss of control of the airplane. Because this could happen without warning, the left and right control column mounts must be inspected before further flight to determine if the retaining ring is missing. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 57 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Inspection of Model PA-46-350P airplanes	3 work-hours x \$85 per hour = \$255	\$0	\$255	\$3,825 (15 airplanes)
Inspection of Model PA-46-500TP and Model PA-46-600TP airplanes	16 work-hours x \$85 per hour = \$1,360	\$0	\$1,360	\$57,120 (42 airplanes)

The FAA estimates the following costs to do any necessary actions that would be required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need these actions:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Installation of retaining ring	0.50 work-hour x \$85 per hour = \$42.50	\$10	\$52.50
Application of retaining compound	0.50 work-hour x \$85 per hour = \$42.50	\$10	\$52.50

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023-25-02 Piper Aircraft, Inc.: Amendment 39-22629; Docket No. FAA-2023-2241; Project Identifier AD-2023-01214-A.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 5 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Piper Aircraft, Inc. airplanes identified in paragraphs (c)(1) through (3) of this AD, certificated in any category.

(1) Model PA-46-350P airplanes, serial numbers 4636811 through 4636814 inclusive and 4636816 through 4636829 inclusive.

(2) Model PA-46-500TP airplanes, serial numbers 4697692 through 4697700 inclusive.

(3) Model PA-46-600TP airplanes, serial numbers 4698224 through 4698240 inclusive and 4698242 through 4698274 inclusive.

(d) Subject

Joint Aircraft System Component (JASC) Code 2701, Control Column Section.

(e) Unsafe Condition

This AD was prompted by a report that a bearing fell out of a control column mount during routine handling prior to installation in an affected airplane and the discovery that a quality escape condition could exist on other airplanes. The FAA is issuing this AD to address a missing retaining ring in a control column mount. A missing retaining ring in a control column mount, if not addressed, could lead to a major failure in the aileron quadrant assembly and result in loss of pitch and roll control during flight with consequent loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Before further flight after the effective date of this AD, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with Part III. of the Instructions in Piper Service Bulletin No. 1409A, dated November 21, 2023 (Piper SB 1409A).

(h) Special Flight Permit

For airplanes with greater than 25 flight hours time since new, a one-time flight is allowed to reach the nearest facility that is capable of doing the inspection and repair described in Part III. of the Instructions in Piper SB 1409A, provided the flight is with minimum required crew and after verification of the integrity of the left and right control columns (the control columns do not feel or visually appear to be loose, do not have a

substantial increase in control force requirements, or do not have a reduction in control authority).

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, East Certification Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the East Certification Branch, send it to the attention of the person identified in paragraph (j) of this AD and email to: 9-ASO-ATLACO-ADs @faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local Flight Standards District Office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Piper Organization Designation Authorization (ODA) that has been authorized by the Manager, East Certification Branch to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (g) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the following provisions apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) The steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(j) Additional Information

For more information about this AD, contact Tuan Tran, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5522; email: 9-ASO-ATLACO-ADs @faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Piper Service Bulletin No. 1409A, dated November 21, 2023.

(ii) [Reserved]

(3) For service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: (772) 291-2141; website: www.piper.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on December 8, 2023.

Victor Wicklund,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2023-27494 Filed: 12/11/2023 4:15 pm; Publication Date: 12/14/2023]